

I. Amendments:

Amendments to the Specification:

Please replace the paragraph beginning on page 37, line 17, with the following amended paragraph:

Isolation of PON1 RNA, production of cDNA, PCR of gene: Total RNA was isolated from HepG2 cells using the Ultraspec RNA isolation system (Biotex Labs, Houston, TX). cDNA was made from total RNA using random hexamers or oligoDT and Moloney Murine Leukemia Virus Reverse Transcriptase (M-MLV RT). The PON1 gene was amplified from the cDNA using Taq polymerase, primer III.66 (5'-GCG GCC GCA TGG CGA AGC TGA TTG CGC TCA CCC TCT (SEQ ID NO:1)) and primer III.80 (3'-TCT AGA TTA GAG CTC ACA GTA AAG AGC TTT GTG AAA (SEQ ID NO:2)). This generated a 1068 base pair fragment (the PON1 cDNA) with *NotI* (5') and *XbaI* (3') ends. PCR and restriction analysis or automated sequencing can be performed to determine the polymorphisms at amino acid positions 55 and 192 (Humbert *et al.*, 1993). PCR and restriction analysis were used to determine if residue 192 was an arginine or a glutamine. A 100-base pair fragment spanning residue 192 was generated using primers 111.60 (5'-TAT TGT TGC TGT GGG ACC TGA G (SEQ ID NO:3)) and 111.61 (3'-CAC GCT AAA CCC AAA TAC ATC TC (SEQ ID NO:4)). This fragment was digested with *AlwI*. *AlwI* cleaves the fragment if residue 192 is an arginine (CGA), but not if it is a glutamine (CAA). Automated sequencing was performed to confirm this and to determine if amino acid residue 55 was a leucine (TTG) or a methionine (ATG). The PON1 gene isolated from HepG2 cells and amplified was Leu55 and Arg192 (PON1-LR).

Please replace the paragraph beginning on page 38, line 4, with the following amended paragraph:

Cloning and mutagenesis of the PON1 gene: pZero2.1 (Invitrogen, Carlsbad, CA) was digested with *Ecl136II* and ligated to the PON1-LR PCR product to produce clone pZero-hPON1-PCR. This plasmid and pGem11Zf (Promega, Madison, WI) were digested with *EcoRI* and *HindIII*. The PON1-LR gene was isolated from pZero-hPON1-PCR and cloned into

pGem11Zf producing plasmid pGem11-hPON1-LR. pGem11Zf is the vector used in the GeneEditor in vitro Site-Directed Mutagenesis System (Promega). Site-directed mutagenesis was performed to mutate Arg192 to Gln192 using pGem11-hPON1-LR as the template, oligo 111.73 (ACC CCT ACT TAC AAT CCT GGG AG (SEQ ID NO:5)), and T4 DNA polymerase. The mutated region of several clones was sequenced to verify the mutation. One LQ clone was then completely sequenced ensure that additional mutations had not been introduced. The resulting clone, pGem11-hPON1-LQ, was used in all subsequent manipulations.